

**Non-Secure Item\*\*\*Non-Secure Item\*\*\*Non-Secure Item\*\*\*Non-Secure Item**  
**ISTEP+ Applied Skills Sample for Classroom Use**  
**Math – Grade 6**  
**(Extended-Response)**

Lynn is baking 20 cakes. She needs blueberries, strawberries, and some other ingredients for her recipe.

- She needs 22 pounds of blueberries.
- She needs twice as many pounds of blueberries as she does strawberries.

**Part A**

Write an equation that can be used to determine the number of pounds of strawberries Lynn needs. Be sure to define the variable in your equation.

**Define the variable** \_\_\_\_\_

**Equation** \_\_\_\_\_

**Part B**

Lynn buys the blueberries for \$3 per pound and the strawberries for \$2 per pound.

What is the total cost of the blueberries and strawberries?

**Show All Work**

**Answer** \$ \_\_\_\_\_

**Part C**

In addition to the cost of the berries, Lynn spends \$52 on the other ingredients needed to make the 20 cakes.

Lynn wants to make \$5 for each cake she sells, taking into account the amount she spends on ALL ingredients.

For how much should Lynn sell each cake in order to make \$5 per cake? Use words, numbers, and/or symbols to justify your answer.

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<b>Content Standard:</b> <b>6.AF.5:</b> Solve equations of the form $x + p = q$ , $x - p = q$ , $px = q$ , and $x/p = q$ fluently for cases in which $p$ , $q$ and $x$ are all nonnegative rational numbers. Represent real world problems using equations of these forms and solve such problems.			
<b>Process Standards:</b> 2, 3, 4, 6			
Calculator: Yes			
Item Type: Extended-Response	Pts: 6	DOK: 3	Grade: 6

**Exemplary Response:**

$p$  represents the number of pounds of strawberries Lynn needs

$$2p = 22$$

OR other valid equation and definition of the variable

AND

\$88

AND

Lynn should sell each cake for \$12.

**Sample Process:**

$$2p = 22$$

$$p = 22/2$$

$$p = 11$$

$$22 \times \$3 = \$66$$

$$11 \times \$2 = \$22$$

$$\$66 + \$22 = \$88$$

$$\$88 + \$52 = \$140$$

$$\$140/20 = \$7 \text{ per cake}$$

$$\$7 + \$5 = \$12$$

OR

Other valid process